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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

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Technology Center 2600

Application Number: 09/685,998
Filing Date: October 11, 2000
Appellant(s): LOUI ET AL.

Pamela R. Crocker
Reg. No. 42,447
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 06/16/2005.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

All claims are separately grouped and argued.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

6,038,257	Brusewitz et al.	3-2000
6,104,752	Yamagishi	8-2000
6,208,691	Balakrishnan et al.	3-2001

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brusewitz et al. (U.S. Patent 6,038,257).

(Claim 1) Brusewitz et al. discloses a method for simultaneously recording motion and still images, comprising the steps of: capturing a motion image sequence with a digital video camera adapted to record both low resolution motion image sequences and high resolution still images (col. 5, lines 32-35; Fig. 2); simultaneously capturing a still image sequence having full resolution images and lower frame rate than the motion capture sequence (col. 5, lines 32-35; Fig. 2); compressing the motion image sequence using interframe compression and storing the compressed motion image sequences (Fig. 2, steps 68-72; encoding the low resolution image); and compressing the still images using intraframe coding and storing the compressed still image data (Fig. 2, steps 62-66; encoding the high resolution image). However, Brusewitz et al. fails to disclose accompanying audio of the scene while capturing a motion image sequence. Official Notice is taken that both the concept and advantages of accompanying audio of a scene while capturing a motion image sequence are well known and

expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art to accompany the motion image sequence with audio in order to provide a viewer the chance to hear what was going on and not just see what happened.

Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brusewitz (U.S. Patent 6,038,257) in view of Yamagishi 6,104,752 (U.S. Patent 6,104,752).

(Claim 2) Brusewitz et al. discloses a digital/still camera comprising: an image sensor for providing a sequence of image frames (col. 2, lines 57-63); means for automatically providing a repeating sequence of full resolution image frames regularly interspersed between reduced resolution image frames, wherein the full resolution image frames represent images with more pixels than are represented by the reduced resolution image frames (as can be seen from the flowchart in Fig. 2); and a recorder for storing a repeating sequence of full and reduced resolution frames of pixel values (26 in Fig. 1). However, Brusewitz et al. fails to disclose a first image buffer for storing at least one full resolution frame of pixel values and a second image buffer for storing a plurality of reduced resolution frames of pixel values.

Referring to the Yamagishi reference, Yamagishi discloses an MPEG system that comprises a first image buffer for storing at least one full resolution frame of pixel values, and a second image buffer for storing a plurality of reduced resolution frames of pixel values (col. 7, lines 11-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Yamagishi with Brusewitz et al. in order to provide buffers before the digital recorder for controlling the recording of the compressed image data.

(Claim 3) Brusewitz et al. discloses a digital motion/still camera, wherein the repeating sequence has a single full resolution frame followed by a plurality of low resolution images (as can be seen from the flowchart in Fig. 2).

(Claim 4) Brusewitz et al. discloses a digital motion/still camera, wherein the full resolution image is stored using a low resolution component stored as part of a motion sequence, and a full resolution component (Fig. 2, steps 54-66).

(Claim 5) Brusewitz et al. discloses a digital motion/still camera, wherein the apparatus further includes a processor (18) coupled to the first image memory, that processes the full resolution frames prior to recording, and produces from a full resolution image frame both a low resolution frame and a high resolution image frame (col. 3, lines 47-58).

(Claims 6, 7) Brusewitz et al. in view of Yamagishi fails to disclose that the processing period for the still image is longer than the capture frame period and that the processor also processes the reduced resolution frames in a processing period that is shorter than the capture frame period. However, Official Notice is taken that both the concept and advantages of the processing period for the still image is longer than the capture frame period and that the processor also processes the reduced resolution frames in a processing period

that is shorter than the capture frame period are well known and expected in the art. It would have been obvious that the processing period for the still image is longer than the capture frame period and that the processor also processes the reduced resolution frames in a processing period that is shorter than the capture frame period because it takes longer for the full resolution images to be processed than the low resolution images to be processed.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brusewitz et al. in view of Yamagishi as applied to claim 2 above, and further in view of Balakrishnan et al. (U.S. Patent 6,208,691).

(Claim 8) Brusewitz et al. in view of Yamagishi differs from claim 8 in that claim further requires the digital/still camera to comprise a control for allowing the operator to set the numbers of full resolution frames to be captured per second.

Referring to the Balakrishnan et al. reference, Balakrishnan et al. discloses a video encoder/decoder system wherein a user can set the number of full resolution frames to be captured per second (col. 11, lines 34-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Balakrishnan et al. with the teachings of Brusewitz et al. in view of Yamagishi to allow the user to select how many still frames they would like in order to preserve the memory.

(11) Response to Argument

i. Appellant argues that the present invention as set forth in claim 1 requires not only capturing a motion image sequence, but also simultaneously capturing a still image

sequence at a lower frame rate than the motion image sequence (Page 4, lines 17-19). Furthermore, the Appellant argues that the relied-upon portions of Brusewitz et al. fail to teach or suggest capturing a motion image sequence while also simultaneously capturing a still image sequence at a lower frame rate than the motion image sequence (Page 5, lines 8-10). The Examiner respectfully disagrees.

Brusewitz teaches that a user enters a command in order to have the camera capture a single high resolution still image, meaning that the user may enter the command whenever the user desires as can be seen from Fig 2. Furthermore, Fig. 2 discloses a while loop in which the command to take a still image can be given more than once. Therefore, when the user enters the command more than once a sequence of still images will be achieved. Brusewitz also teaches that each time a still image is being taken a corresponding low resolution image is also being created as can be seen in Fig. 2.

ii. Appellant argues that it is important to note that the user is not required to "press a special button" to capture each high resolution still image, as in the conventional practice noted (Page 4, line 30 – Page 5, line 2). The Examiner would like to point out that this feature is not claimed. Therefore, the argument is moot in regards to claims 1-8.

iii. Appellant argues that Brusewitz et al., column 5, lines 54-56, indicates that upon receipt of a command to capture a single a single high resolution image, "normal video image frame transmission (video mode) operations are suspended." These suspensions may be lengthy, possibly for a period of time encompassing steps 54-66 in

the Fig. 2 flow diagram (Page 6, lines 20-24). The Examiner would like to point out that there are no claims addressing the time it takes to create the high resolution and the low resolution images. Therefore, this argument is moot in regards to claims 1-8.

iv. Appellant argues that the Examiner fails to provide an element (b) specifying means for automatically providing a repeating sequence of full resolution image frames regularly interspersed between reduced resolution image frames (Page 8, lines 8-10). The Examiner respectfully disagrees.

Brusewitz et al. teaches that each high resolution image is automatically regularly interspersed between reduced resolution images as can be seen from Fig. 2. Whenever a command for a high resolution image is not being given low resolutions images are being taken. Then once a command is given for a high resolution image is given a high resolution image is taken along with a low resolution image being created. After the high resolution image is taken the camera goes back to taking low resolution images until another command is given for a high resolution image. Therefore, each high resolution image is regularly interspersed between low resolution images.

v. Appellant argues that there is no teaching or suggestion that the single high resolution image is stored using low and full resolution components, with the low resolution component being stored as part of a motion sequence (Page 10, lines 2-5). The Examiner respectfully disagrees.

Brusewitz et al. discloses in Fig. 2 that the camera captures a high resolution image and from that creates a low resolution image. Afterwards the low resolution image is encoded in the video mode meaning that the low resolution component is

being stored as part of the motion sequence. Furthermore, the high resolution image is then encoded in the still mode. Therefore, as can be seen from Fig. 2, the single high resolution image is stored using low and high resolution components.

vi. Appellant argues that the relied-upon portion of Brusewitz et al. refers generally to the operation of the Fig. 1 system, and fails to meet the particular limitations of the dependent claim 5, which calls for a processor coupled to a first image memory, that processes stored full resolution frames prior to recording, and produces from a full resolution image frame both a low resolution frame and a high resolution image frame (Page 10, lines 10-18). The Examiner respectfully disagrees.

Brusewitz et al. discloses in Fig. 1 that the control unit (18) supplies encoder (16) with a plurality of operating parameters to govern the aforementioned transformation of pixel data into a corresponding compressed bitstream (col. 3, lines 52-55). Furthermore, Brusewitz et al. discloses that the control unit (18) governs the operations of the encoder (16) in accordance with the values of the aforementioned operational parameters, one of which is a command indicating a still image request (col. 5, lines 50-53). Therefore, Brusewitz et al. discloses a processor coupled to a first image memory, that processes stored full resolution frames prior to recording, and produces from a full resolution image frame both a low resolution frame and a high resolution image frame.

vii. Appellant argues that the rejection of claim 8 with regards to the Balakrishnan et al. reference does not relate to image capture resolution, but to an image coding configuration, namely, the number and arrangement of I, P, and B frames in an MPEG compressed video stream. The Examiner disagrees.

Balakrishnan et al. teaches that the user can set how many I frames are to be used during the video stream. However, I frames are high resolution frames compared to the B and P frames, which have a low resolution. Therefore, Balakrishnan et al. teaches to allow the user to specify when to use high resolution frames amongst the low resolution frames, which is analogous to Appellant's invention.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Examiner
Art Unit 2615

HRL
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August 18, 2005

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